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A DISAGREEABLE SUBJECT.

The English journals bring us the annual piece of information that there is a scarcity of anatomical material in the London schools. Not only is there a want of subjects for first-year men, but second-year men, who are soon to come up before the examiners, have the pleasant prospect before them of being plucked, simply because little opportunity has been afforded them of obtaining a knowledge of practical anatomy, and the English boards demand that knowledge in this branch shall be essentially practical.

To us on this side of the water such a state of affairs seems absurd. We are wont to believe that any thing the world affords can be obtained in London. One would naturally suppose that with a population of more than four million, and a mortuary list of eighty thousand per annum, dead men especially would be at a discount. They have an anatomy act too, and a commissioner appointed by the crown to see it enforced. With all these facilities, that their need for dissecting-material should be sore is seemingly inexplicable. It is not our purpose to unravel the situation; to use a little American slang, it is their own funeral, which we doubt not, before another century has passed, they will themselves properly provide for.

We wish, however, in this connection to call attention to the state of affairs which exists in the anatomical line at home, and to ask is practical anatomy properly provided for in this country, and is due attention paid to its importance? If not, whose fault is it? Every school in its annual circular has a flaming advertisement of the

facilities it offers for dissection, and the cheapness with which it can be obtained. It is fair to say that not one in ten, in the first particular at least, could make its word good, if a proper demand were made upon candidates for graduation for knowledge in this branch. Dissecting-laws exist in some of the states, to be sure, and in several of the large centers—notably in Boston, New York, and New Orleans—perhaps the supply of anatomical material could be made in every way abundant. In these places the schools could justly demand, if they chose to do so, that the candidate for the degree of medicine should have repeatedly dissected every portion of the human frame; should be able to demonstrate upon the actual dissection—not say by rote—every essential structure, and should perform upon the cadaver before the examiners enough of the operations of surgery and midwifery to show that he had been properly practiced in these branches. Of course they do not do so, nor is there any use just now in asking so much of them. This would be simply the rant of reform. Perhaps we will reach this point before another centennial year; but in the mean while we do ask if there could not be a little advance along the whole line of schools which every one would be able to keep up to? Certainly one term's dissection, which is the general rule just now, is too little to demand of students in medicine. Many of them voluntarily dissect during the second year. Few would deem it a hardship if this were made compulsory. Abolish the absurdity of thesis-writing, and we dare say all would gladly dissect in exchange. It is useless to dwell upon the importance of anatomy in the schools. It is the one thing

which the student is going to get there and nowhere else. The foolishness of lecturing he may well supply with his books; he holds a clinic for himself at every bedside to which he is called; but when he bids adieu to his college he bequeaths his gown to the janitor, and through future years inglorious rust is to gather upon his scalpel.

Did the schools really believe that their supply of anatomical material was sufficient they would long since have made the simple demand for a second term's dissection. Necessity has made their consciences easy in this matter. We believe it is seeming necessity only; that if the matter were regarded in a proper light the supply would be equal to the demand.

We have given this subject some thought, and hope to be able to point out where the difficulties lie, and to suggest proper remedies for them. In the first place, little is to be hoped for from dissecting-laws. Every year well-meaning individuals—ourselves have in times past been among the number—have besieged legislatures to grant anatomy acts. They have generally failed, as no concert of action could be brought to bear upon these bodies, only the schools being to any extent interested in the matter; and your patriotic legislator is not going to allow his constituents to be cut up except under the strongest influences. Even were the acts passed they would in most instances cut the supply short rather than increase it, as they invariably demand impossible conditions and double the usual penalties for obtaining material otherwise than by its provisions.

In some of the states, as we have before observed, they have done very well, though even in some of the large centers, as Philadelphia, they have not, we believe, improved matters much; generally they have been entire failures.

Thrown then upon their own resources, what are the schools to do? Simply to recognize the importance of practical anatomy, and pay for it accordingly. Stop this advertising "cheap" material. Let it be paid for as its true value demands, and enough

will be forthcoming. If some of the schools give away this material, any one with half an eye can see that the students spend more than the cost of it in a dozen other ways. Why value the cost of this material in dollars and cents when it is applied to the most important branch of a medical education?

Students would place a higher value on dissections if they cost more. The school gives material for little or nothing, and it is valued accordingly. Put a proper price on it, and the student will examine it a little more carefully to see what it is made of. If the schools are afraid to raise the price for fear their supply may not appear abundant, let them pay roundly for the difference themselves—any thing to raise a proper supply of money for the object in view. Money will any time double the exertions of your honest resurrection-men, and money will discover means to preserve subjects during the summer months fit for winter dissections. It is the cheap cadaver which becomes so unseemly during this season.

Another matter: for the sake of decency and common interest let every school obtain its supply at home. There are but two or three institutions which should depend at all upon foreign supply, and school-authorities will consider the interests of medical education by seeing to it, as they can, that their proper domains are not invaded. It is in the transportation of material to distant points that from time to time such disgusting exposures occur. And stop this dealing with irresponsible parties. If the school can not afford to employ a proper agent, who under responsible direction will see that only proper material is obtained, the sooner it goes to the wall the better. Such scenes as those which occurred in a north-western city a month or so ago are disgraceful, not only from the heartlessness but the idiocy shown. Any attempt to obtain supply outside of the friendless is a crime against humanity and the interest of education. For the argument is plain: the only injury which can be done by dissection is to the feelings of surviving friends. If there be none such, no injury

is inflicted, and exposure can excite no personal feelings against the profession. The law tacitly acknowledges the necessity of dissections, though legislatures are slow to grant anatomy acts. The law is quite ready to wink at the matter, but common-sense demands that it should be soberly, decently, and secretly carried on.

We hope that we only quote an example and do not seek advertisement when we say that the schools of Louisville, which in point of number of students represent the third medical center of the Union, have had no deficit, as the anatomical world goes, in their supply, and in their long history have made few mistakes.

We are quite certain that the amount of material could be every where greatly and properly increased, and that the schools generally could, if they chose, justly demand a second term's dissections from all students, and have sufficient material for operative courses besides. The supply depends upon money and prudence, and if these are not forthcoming the schools are to blame.

Original.

PHYSIOLOGICAL ANTIDOTES TO OPIUM.

BY J. W. HOLLAND, M. D.,

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As the two cases narrated below prompted the medical attendants to revise the views previously entertained by them in regard to the treatment of opium-poisoning, it is deemed advisable to present the facts and conclusions to the profession.

CASE I.—B. W., aged twenty-eight, retired to his room at three o'clock P. M., when he took about one fluid ounce of laudanum. Four hours afterward he was discovered in deep narcotism, and Drs. Cook and Crowe were sent for. Emetics did not take effect,

and the stomach-pump was of no service. One fiftieth of a grain of sulph. atropia was administered hypodermically. The pupils dilated slightly, the breathing became more infrequent, and the pulse weaker. At half past seven o'clock I applied the full secondary current from a largest-sized Drescher's faradic coil, without eliciting the faintest sign of consciousness. The electrodes were dabbed upon the skin covering the phrenic and pneumogastric nerves back of the sternomastoid muscles of the two sides. This was done after the method of Ziemssen,* with this difference, that the times chosen for passing the current were not regular, but varied according to the inspiration, so as to give it a lift while rising. In half an hour the respirations, though very far from being full, had risen from the rate of four or five a minute to fourteen. The pulse was but slightly affected. This condition was unsteadily maintained for about twenty minutes. At eight o'clock the dose of atropia (one fiftieth of a grain) was repeated subcutaneously. In less than two minutes he was alarmingly worse. In manipulating the electrodes I had to lean over the patient constantly for several hours, so that the observations following were very minute, and their accuracy could be tested by repeated experiments. The pupils responded to the atropia, the respiration fell to two or three per minute, and the pulse grew weaker and less regular. At one time we thought him nearly dead, when one or two struggling respirations and almost countless feeble pulsations to the minute were the only signs of life.

For an hour there was but little change, though the battery was plied assiduously and in many directions: through the neck, through the chest, from neck to epigastrium, from neck to feet, from hand to hand, from nape to forehead, and through the brows.†

A careful comparison of the stimulating action upon breathing of these modes re-

*Beard & Rockwell's Medical and Surgical Uses of Electricity, second edition.

† Each of these has had advocates. See article on Electricity as a Means of Resuscitation, by Allan McLane Hamilton, M. D., American Practitioner, October, 1872.

sulted in the adoption of the last named. It was noticed that when the electrodes were pressed upon the points of exit of the supra-orbital nerves from the foramina a better impression was made upon the respiratory act than when applied any where else, though it was found useful to shift the sponges from time to time to other branches of the sensory nerves of the face. After a short period of rest the susceptibility returned, and the shock of a fresh current upon each part previously exhausted was followed by the same effects as at first.

These observations were confirmed and enlarged as the patient began to give indications of his sensations by voluntary motions. The cutaneous nerves all over the body were good excitors, and varied in this respect in the ratio of their electrosensibility. Excitation of the motor nerves of respiration was comparatively unprofitable. A relapse would follow an intermission of a few minutes in the electrical application. With the exception of occasional enemata of strong coffee, this was the only treatment for three hours, the patient in the mean while recumbent. Cardiac vigor was slowly restored; by ten o'clock there was imperfect consciousness; by eleven o'clock regular respiration was established and the battery discontinued. He was allowed to sleep off his opium in bed, interrupted occasionally by the attendants shouting in his ears.

The brief interval between the second dose of atropia and the failure of respiration and circulation was just enough to enable the drug to enter fully upon its work. We who witnessed the incident were forced to the conviction that one fiftieth of a grain had produced disastrous results. This condition lasted for just about the time during which that agent might have been exercising upon the centers of respiration and circulation the disturbing influence which it visibly had upon the iris. Experience with it in two other cases that got well and one that died had lead me to doubt its alleged vir-

tues. A similar distrust exists widespread among physicians generally, who give the atropia notwithstanding, because authority and custom sanction its employment in the absence of any sure stimulant to the functions most dangerously affected.

Ever since the opposing action of the two drugs was first asserted there have been two sides to the debate, each supported by very able men. Dr. H. C. Wood, jr., in a very valuable contribution* to the vexed question, says "that the records establish the therapeutic value of atropia in opium-poisoning; but this does not indicate, much less prove, complete antagonism between the two drugs." He thinks that very frequently too much atropia is given; a careful judgment is required of the needs of the individual case at the particular time. *The pupils are unsafe guides*; the whole condition, especially the frequency of breathing, must be considered. If the symptoms are undergoing amelioration, fresh atropia should not be given.

It is difficult to understand how any one can determine that an agent increases the frequency of breathing in one degree of opium asphyxia, when he concedes that it may reduce the rate in another degree of the same abnormal state. The argument in favor of atropia may be reduced at last to this: many instances of restoration and comparatively few of death under its use have transpired in the records.

It is such a wonderful sight to see life gradually re-animating a body which has been nearly corpse-like for an hour, that to account for the change we readily seize upon the idea of contending forces and a victory of the slow and secret antidote. We are apt to forget that death from opium, where any kind of approved treatment could be brought to bear, has been quite infrequent. Out of numerous cases, many far advanced, brought to Guy's Hospital, very few proved fatal, and that too when the remedies did not include belladonna or its

*Therapeutics, Materia Medica, and Toxicology, second edition, 1876, page 250.

derivative.* As these substances have been known to do harm in some cases, may there not be here unrecognized examples of what has happened so often in the practice of medicine; namely, recovery unassisted by or in spite of the remedy?

In the treatment of Case II no atropia was used, because, after reviewing the conflicting evidence embodied in the literature at hand, I was ready to indorse Dr. Ringer's opinion, "that on the subject of this antagonism more proof is needed."† A questionable remedy, and one calling for unusual delicacy of management amid the distractions which attend such cases, may be ignored without prejudice to the patient.

CASE II.—Simon Kracht, aged fifty, at two o'clock, just after dinner, took twenty-five grains of sulph. morphia (Powers & Weightman) with a suicidal intent. Presently from fright he told what he had done. Those about him thought he was shamming for effect until narcotism declared itself. I saw him with Dr. Gilbert at half past three o'clock, when he could with difficulty be made to answer questions. Several doses of mustard, of zinc sulphate, and of ipecac had failed to act. The tube of the stomach-pump was introduced with difficulty between his firmly-set teeth, which were pried apart and kept so with a wedge. A pint or more of warm water was injected, but nothing could be withdrawn, as the food closed the fenestra. He rapidly sank into coma and asphyxia. Walking and shouting utterly failed to affect him. We felt justified in using an electrical current many times more intense than that obtained from the ordinary medical battery. This was furnished by a small Rhumkorff coil, giving a quarter-inch spark, such as is used in the laboratory for physical experiments. It inflicts unbearable pain and produces muscular contractions of great energy. We passed this current

through the patient's nerves of sensation for about seven hours, with short intermissions.

The observations made in Case I received emphatic confirmation. The superiority of the facial nerve as the medium for arousing the ganglia most seriously involved was again made evident.

Except during the relatively short period of maximum intensity of the narcotism, the shock at the eyebrows would develop movements from muscles near by but not in the immediate range of the current. They appeared to be demonstrations of reflex action. Coincident with them there was a perceptible improvement in the breathing; very likely this was excito-motor also. Elsewhere than on the face the beneficial effect was not so decided. The violent spasms into which the limbs were thrown seemingly interfered somewhat with the easy action of the heart and lungs. It was shown that the muscular contractions excited by transmission through the neck, while they undoubtedly caused expansion of the thorax at the time, were in the end detrimental. They caused quick gasps, and then before the next spontaneous inspiration there would be an interval of repose longer than before. I think that the breath was not so deep as when the excitator respiratory nerve, the facial,* was alone the seat of irritation. No measure of the chest was taken, but a number of times, when the shock was given upon the phrenic nerves at the rise of inspiration, it appeared to stop short of completion. The bust of the patient was of large proportions, and would have been well adapted for precise estimates of the kind alluded to. When the sponges were touched about at random upon the trunk the hinderance offered by the muscular cramps almost neutralized the awakening power of the pain. During several interruptions to the flow of the electricity relapses occurred. Death was so imminent and the margin for experiment so narrow we dared not stand the hazard of

*Taylor's Treatise on Poisons. American edition, 1875, page 538.

†Hand-book of Therapeutics, 1873, page 449.

*The infant's first breath is induced by the stimulus of cold acting on the extremities of the fifth pair of nerves. (Marshall Hall.)

testing by its longer absence the positive value of the current.

By degrees the power of the morphia wore away. At ten o'clock he was breathing regularly, about fourteen or fifteen to the minute. His pulse was good, and when awakened by the shock he would respond to his name. Thinking him fairly on the road to recovery, I left him in charge of some advanced students, who were to watch by relays during the night, give him free potations of coffee, and administer the electricity as required. They were warned against the relapse which might occur when a dose of such fearful magnitude had been taken. Dr. Roberts visited him at eleven o'clock. The patient recognized him; proposed to walk into the yard for a confidential chat; got out of bed, went several hundred yards with comparative ease, but, growing stupid, laid down again.

After half past eleven o'clock the following noteworthy incidents occurred, as told me by one of the students, Mr. V. P. Armstrong, who remained with him: he vomited repeatedly and after every draught of coffee; talked a little flighty, but was conscious, and in the feats of pedestrianism they performed together walked at times twenty or thirty yards without support. When fits of drowsiness would come upon him he was treated with momentary shocks or forced walking. In their zeal to keep him awake they walked him thirty or forty times around a large lot, at least a mile in all. About twelve o'clock his complaints of fatigue were so importunate that they let him lie down. Sitting by the bedside, they were astonished after a short while to find his heart failing. He shortly died with symptoms which indicate syncope.

It is a remarkable feature that he should have survived to a degree the narcotism of twenty-five grains of morphia, none of which was expelled, and the absorption of which was not impeded by any artificial interference. Very likely the relapse was not due entirely to the action of remaining portions

of the poison, for the stomach had been emptied by vomiting an hour before. Surely it is within bounds to say that it was injudicious to tax the already enfeebled heart with so much exercise. This stage is one of exhaustion, which calls for a cardiac stimulant rather than for the depressing effects of fatigue. Drowsiness generally lasts for hours after danger is passed. If it should persist to an alarming degree, occasional shocks, slaps, or douches are safer and more convenient means for arousing the patient.

LOUISVILLE.

LOCAL USE OF BROMIDE OF POTASSIUM.*

BY MARTIN F. COOMES, M. D.,

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The bromide of potassium, in substance or saturated solution, applied to living muscular tissue produces paralysis. The same effects are produced when it is applied to a nerve-trunk or injected into an artery; that is, the muscles supplied by the nerve or artery which the drug has acted in or upon will be paralyzed.†

Applied to mucous surfaces it is a local anæsthetic, although this effect is secondary unless used in weak solution, say ten or fifteen grains to the ounce of water. The action of the bromide when applied to mucous surfaces, in substance or saturated solution, resembles that of a caustic. Its effects upon mucous surfaces are not visible like those of an ordinary caustic. It does not whiten the tissues, nor is its application painless, as is the case with many caustics. When applied to the schneiderian membrane or palpebral conjunctiva the pain is severe and of a hot burning character. The larynx and fauces are more tolerant to its action than the eye or nose, but the pain is similar in being associated with heat. The duration of the pain is never more than a few seconds. Applied to congested mucous surfaces

* Read before the Louisville Academy of Medicine, Dec. 27, 1875.

† See Stillé's Work on Therapeutics.

it discharges the distended vessels and increases the secretive action of the mucous follicles.

In papillary ophthalmia, commonly called "granular lids," the results of its action are similar to those obtained from the use of the muriate of ammonia. It reduces the hypertrophy, increases the amount of secretion, and allays pain. Its anæsthetic properties alone give it an advantage over the ammonia.

In the treatment of nasal catarrh, where there is a dry condition of the membrane, the bromide, in powder or saturated solution, is an agent of great value. Where there is hypertrophy of the membrane lining the nasal cavities, with an insufficient amount of the normal secretions, a condition met with in proliferous inflammations of the membrane, insufflations of the powdered bromide or injections of the saturated solution produce excellent results. By its use the secretions of the membrane are increased, congestion lessened, and a marked reduction in the hypertrophied tissues. Its immediate effects in these cases of proliferous inflammation of the nasal cavities is to relieve the patient of that sense of "*stiffness*" which is most always complained of.

For the last year and a half I have relied almost entirely upon the bromide of potassium as a local agent in the treatment of throat-affections. It has but rarely disappointed me. The results which I have obtained from its use in this class of diseases have been most gratifying. In cases of acute tonsillitis and pharyngitis, it matters not whether in their incipency or in the advanced stages, a solution of the bromide of potassium, sixty grains to the ounce of water, applied with a mop or with an atomizer every hour or two, will be found to produce well-nigh complete relief. In cases of ulceration the open sore should be touched with carbolic acid or nitrate of silver. In but few cases will it be necessary to re-apply the escharotic a second time. Under this plan of treatment all the painful and distressing symptoms that attend such cases speedily disappear.

In every instance the patients treated with the bromide expressed themselves as feeling great relief immediately after the application of the drug. These statements have been verified by the rapid reduction of temperature in the affected part, the restoration of the functions in the mucous follicles in the vicinity, the disgorgement of the distended blood-vessels, and almost an entire absence of pain during the whole course of the disease.

In affections of the larynx it is equally applicable. I have seen in the larynx a polypus of considerable magnitude disappear by the application of the powdered bromide of potassium once a day at first, then every third day, for a month or six weeks. The tumor was large enough to fall across the vocal cords and produce almost complete aphonia. After the polypus disappeared the patient was subject to attacks of dysphonia upon the least exposure to damp weather. The voice in this case was always partially and temporarily restored by the use of the bromide, but it seemed to exercise no permanent curative effect.

In cases of congestion of the laryngeal mucous membrane, attended with cough, the application of a forty- or sixty-grain solution of the bromide with the atomizer is an excellent remedy.

I have used it in the cough of phthisis with encouraging results. I have not been able to give it a fair trial in this class of diseases on account of the number of my cases being too small to draw any definite conclusions. In the advanced stages of phthisis, when the cough is severe, and the amount of irritability about the epiglottis is so excessive as to excite retching and vomiting, I think it is preferable to cough-mixtures.

My experience with the bromide in cases of oedema of the glottis has been very limited, having only seen one case, and that in twenty hours after the first application of the drug. The patient was under the care of my friend Dr. D. S. Reynolds. He told me that when he first saw the patient her face was livid, countenance anxious, and a state of

general excitement prevailed. The glottis was almost closed, the chink not being larger than a quarter of an inch in diameter. To produce this state of things it is left for the reader to imagine the amount of effusion which must necessarily take place to bring it about. The doctor applied the powdered bromide directly to the oedematous parts with a brush, with the effect of relieving his patient in the short space of twenty minutes. I saw the patient on the following evening, and to all appearances she was well, her breathing perfectly easy, and the countenance presenting its natural appearance, whereas but a few hours before she appeared to be suffocating, with eyes aglare and face of purple hue.

Its application might be somewhat difficult in children. In cases where the drug can not be used in powder with a brush the tongue may be drawn forward, and as much as a tea-spoonful of the saturated solution poured on its base, and the organ held until the patient begins to strangle, which will be as soon as the solution reaches the larynx. This seemingly cruel mode of administration may appear to be attended with danger, but there can be nothing more than temporary strangulation, which will excite violent coughing, an act that may in all probability cause the distended membrane to rupture, and in this way relieve the patient. Free incision of the oedematous membrane will afford relief; but it requires an experienced hand to make the incision. In spasmodic affections of the glottis I think the bromide promises to be an invaluable agent. I have used it in one case of spasmodic croup with the happiest result. The patient was a very fleshy child, six years old, and was subject to such attacks. When I first saw her she had the croupy cough, with difficult breathing and livid face. I sprayed her throat with a solution of the bromide of potassium, sixty grains to the ounce of water. She was relieved of all the unpleasant symptoms at once. I ordered the application to be repeated if the symptoms returned. The repetition was not called for until seven

hours subsequently, when upon a return of the spasmodic respiration the spray was repeated, and the disease did not again return.

LOUISVILLE.

LIGATION OF THE RADIAL AND ULNAR ARTERIES FOR SECONDARY HEMORRHAGE FROM THE PALMAR ARCHES.

BY W. O. ROBERTS, M. D.,

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In October last I was called by Dr. Parsons, of this city, in consultation in a case of secondary hemorrhage from the palmar arches in a lad fourteen years old. The history of the case, as told me by the doctor, was to this effect: A week previous, while hunting, the lad had accidentally discharged his gun, the load passing through his hand, making a large lacerated wound of the soft parts and fracturing the fourth and fifth metacarpal bones. The wound was dressed at the time by a neighboring physician, and the boy sent home. Dr. Parsons saw him on the following day, when there was no hemorrhage. The wound progressed well until the sixth day, when on the removal of the dressings slight oozing occurred, which was promptly arrested by styptics. The following day (seventh) arterial hemorrhage came on, and the doctor, being unable to arrest it by means of styptics, compresses, and position, applied a tourniquet to the brachial artery and a compress and bandage to the hand, and then sent to me for assistance. When I arrived the arm was greatly swollen from congestion and the dressings saturated with blood. The patient was put under chloroform, and when the bandage was removed blood was still oozing from the wound. We endeavored to find the mouths of the bleeding vessels; but failing to do so, decided to cut down and ligate the radial and ulnar arteries just above the wrist-joint, a result anticipated by Dr. Parsons. The Esmarch bandage having been applied, I cut down on the arteries, found and tied them without any difficulty. They appeared just as they do in the dead subject. On removing the

Esmarch we found that all hemorrhage had ceased. The hand and arm was then enveloped in cotton batting.

Dr. Parsons resumed charge of the case, which went along uninterruptedly well, with no return of the hemorrhage. The patient is now well, with no evil effects from the injury, excepting a slight deformity of the little finger from the loss of a greater portion of the fifth metacarpal bone.

LOUISVILLE.

Reviews.

Iridotomy and its Applicability to Certain Defects of the Eye. By A. W. CALHOUN, M. D., Professor of Diseases of the Eye and Ear, Atlanta Medical College. Reprint from Southern Medical Record.

The operation of iridotomy as proposed by Von Graefe and Bowman has recently been re-introduced and modified by Wecker, of Paris, and is rapidly finding its place in the list of surgico-therapeutic measures employed by the ophthalmic operator. It is intended as a substitute for iridectomy, or the excision of a part of the iris substance, and is performed in two ways by Wecker, who calls them simple and double iridotomy. The first is performed, if the lens be still present, in cortical and lamellar cataract, in macular corneal opacities, and in leucoma without marked deviation of the normal corneal curvature. The second is employed in those cases in which there is occlusion of the pupil after cataract extractions. If the first operation is to be done, Wecker employs his so-called *couteau à arrêt*, or stop-knife, to make a corneal incision not more than four to six millimeters in length; then introduces his *pince ciseau*, or scissors and forceps combined, passes one blade behind and the other in front of the iris, and then by closing them separates the sphincter. If a double iridotomy is to be done, he passes through the substance of the iris as soon as he has perforated the cornea; passes

the scissors through this wound, one blade behind the iris, and makes a double V-shaped incision, the apex at the pupillary margin of the iris.

Dr. Calhoun, in his paper, reports the details of four operations for iridotomy, in all of which he employed the first method. The first operation was done to relieve a prolapse of the iris after a cataract extraction, in consequence of which the pupil was drawn up under the upper lid, so that there was no vision possible. The iris was divided and sight restored.

The second case was that of central corneal opacity, due to an ulcer produced by the friction and irritation of granular lids. This latter condition was relieved by proper medication. The iris was divided at the lower and inner segment of the pupil, and, retraction taking place, excellent vision was secured.

The third case was similar to the last-mentioned, and the operation the same as was the favorable result.

The fourth case was operated on for occlusion of the pupil, ensuing upon a slow subacute iritis, after a removal of a mature cataract, in the person of a lady aged thirty-five years. The result was most excellent, and though vision was *nil* previous to the operation, after the wound had healed she could with the help of a convex $2\frac{1}{2}$ " lens (cataract glass) read small print with ease.

It affords us the more pleasure to record these successes of Dr. Calhoun, as we ourselves have resorted to this operation twice, achieving the most favorable results. At a future day we hope to record these cases at length, and thus add something more to the literature of the subject.

R. C. B.

Selections.

TREATMENT OF DIPHTHERIA.—Dr. M. I. Moses, of New York (Virginia Medical Monthly), says: "When called in such a case the first object is to control symptoms; and after seeing that there is no

disordered function which might tend to increase headache (if there is, correcting it) we should give our patient, if possible, *rest*, as wakefulness and jactitation are wearing and depressing. To accomplish this end paregoric and niter, in doses to suit the age, I have always found to act well with children; in adults half a grain of codeine or thirty grains of potass. bromid. yield happy results. A fever-mixture of spirits mindereri or of chlorate of potassa and hydrochloric acid may be administered. The reduction of temperature, if pyrexia be marked, may be secured by inunction of cocoa-butter or by sponging the body. Experience has taught me that *nothing will delay or shorten the struggle of evolution, and, except to comfort the patient and treat pressing symptoms, I know of nothing which will be of service in controlling or modifying the attack.* With the first subsidence of the initial symptoms—unless the deposit be extensive and coincident, when local measures should be *at once* adopted—two indications are offered: first, local application, and then vigorous and energetic use of sustaining and tonic treatment. First, paralyzation of the septic and dangerous elements contained in the membrane must be attempted, and then the separation of the patches must be accomplished as soon as possible, not by forcible detachment, but by a species of desquamation. I have at different times tried various applications and compared results, and carbolic acid applied in its purity to the points within reach has proven itself superior to iodine, chlorine, iron, the hyposulphites, or any other application. Nitrate of silver I have found entirely untrustworthy. The application of the acid should be made at least twice a day, and may be accomplished by a piece of cotton twisted upon an ordinary probe. If the disease occur in an adult, or in a child old enough to assist itself, Oertel's recommendation of the use of steam, persistently applied, is the most rational and in my hands has been the most successful method of detaching the membrane. This of course is impossible in infants or intractable children; but when it *can* be used, if thoroughly applied, will rarely fail in accomplishing satisfactorily what is intended by its employment. The best way in which it can be applied is by means of a wide-mouthed vessel containing hot water, the vapor being permitted to enter the throat by the patient opening his mouth over the vessel and breathing through his mouth and nose *simultaneously*. The remedy is perfectly inert if the patient merely opens the mouth and breathes through his nose alone; for he will then be obliged to shut off the communication between the mouth and nasal passages by pressing the tongue to the roof of the mouth anterior to the tonsils, and consequently the steam would never reach the parts to which it should be directed. The mixture with the water of a little carbolic acid (say

one minim to the fluid ounce) may be beneficial; but many patients are found whose sensitive lungs render even this small quantity worse than useless by provoking cough and a feeling of strangulation. Accurately as Oertel describes its action, it will scarcely ever disappoint those who employ it, and the membrane will be loosened and come away in shreds, mixed with pus-cells, leaving the subjacent tissues sodden, swollen, and intact. A gargle containing chlorate of potassa will be of eminent service, acting by the value to be derived from the mechanical effect of the act and by the detergent properties of the salt. In the already pronounced septic form of diphtheria Dr. Jacobi recommends persistent nutrition for the purpose of filling the hungry mouths of the absorbers, which, unless they are full of nutritive matter, are not too fastidious to accept a meal of fungi and spores. Be this clinical observation accurate or not, it stands to reason that a devitalizing disease like diphtheria requires of us to support and nourish our patients—of course while keeping in mind the fact that the stomach, in atonic sympathy with the rest of the economy, must be treated tenderly and with due regard to its vitiated powers. The nervous phenomena, as results and not as the essential parts of the malady (such as paralysis, chorea, etc.), require to be separately considered and studied, and will not here be more than passingly mentioned. It is well to be remembered that the frequency and intensity of the paralyzes or other nervous features do not depend so much upon the violence of the preceding attack of diphtheritis as upon the quantity and location of the deposits. My own experience has forced upon me the conclusion that naso-pharyngeal diphtheria is to be credited with the greatest number of paralyzes. Post-mortems in fatal cases show various results—in some hyperæmia; in others inflammatory changes in the brain and cord, and these results as yet have not been classified or explained satisfactorily. The treatment based upon "general principles" (which means strychnine, arsenic, iron, or galvanism) is the adopted plan, testimony balancing the value of each mentioned agent. Jacobi believes in the efficacy of strychnine, and claims successful results."

DIAGNOSIS OF CHANCER.—Mr. Jonathan Hutchinson, in a lecture upon "Soft Chancres in their relation to Syphilis" (*Lancet*), gives the following sound advice: "Let me here insist upon the extreme importance to the reputation of the practitioner of the rule never to give an opinion as to the nature of a chancre until the incubation period is over. Patients will come to you with sores contracted a few days or a week or two before, and will expect you to be able to tell them whether or not they are likely to have syphilis. Now there is never any thing in the con-

ditions which are either present or absent which will justify the most practiced observer in giving any opinion at such a stage. It is very rare indeed that an infecting sore acquires any induration within three weeks of the date of contagion, and more commonly it is a month or five weeks. Until such induration takes place nobody can tell whether it is coming or not. Very various indeed are the conditions which may have been present during the preceding period. Your patient may have had a soft sore, which may have been severely inflamed, or even phagedenic; he may have had a bubo, and that bubo may have suppurated; or he may have had no sore at all and no bubo. Let your rule be, I repeat, to give to your patient no opinion whatever as to his chance of escape until he can assure you that it is one month since his last exposure to risk. It is a matter of constant experience to be told by patients that the medical man first consulted assured them that the sore was only a soft one and would not infect, and under such circumstances it is always very difficult to restore the patient's confidence in his adviser's knowledge. If the contagion of syphilis were always affected with the same care as to purity of the virus as is exercised in the case of selection of lymph for vaccination, it would not have been necessary to teach this doctrine of caution now. No one thinks of speaking as to the prospect of the success of vaccination during the first few days, nor would he be able to do so even so soon as that were it not that the vaccine vesicle is enabled to develop itself uncomplicated by other morbid processes. It is not so, however, with syphilis, and hence the variety of the results which we witness during the first two or three weeks after contagion.

AXIOMS IN LITHOTRIPSY.—Dr. Ivanich (Vienna Medical Journal, 1875, No. 1) suggests the following axioms in lithotripsy: "This operation should only be performed very seldom, and then always in girls previous to the twelfth year of life. Further than this sex is no contra-indication. From this time to old age the chances of a successful issue always increase, and during the latter period this procedure is preferable to lithotomy. Here lithotripsy should be the rule, the other the exception. Organic and dynamic integrity promote the success of the operation; but even a marked deviation from this standard need not be an insurmountable hinderance. Phimosi is prevented by slitting or circumcision. Strictures should be relieved according to rule. Hypertrophy of the prostate (particularly the middle lobe) is often a stumbling-block, but may generally be overcome. The paralysis of the bladder, which prevents the expulsion of the fragments of stone, must lead us to remove these in other ways. Vesical catarrh has but slight effect on the operation. The increased

sensibility of the urinary passages is often productive of failure, but can be relieved by the administration of narcotics. More serious organic disturbances of the bladder, ureter, and kidneys, when they can be diagnosed, contra-indicate lithotripsy, but also impair the success of lithotomy. The presence of a small stone, or of a number of them, is favorable for lithotripsy, if they are not too hard. The chemical composition of the gravel is of no consequence, even if it be of oxalate of lime. Stones inclosed in *diverticuli*, such as are impacted in the neck of the bladder, and which can not be pushed back into that viscus, as well as all such which have nuclei composed of substances which can not be crushed, must be removed by section. Doubtful cases can only be determined by the good sense of the surgeon, who must also determine any other question which may arise.

RUPTURE OF THE TYMPANUM.—W. B. Dalby, F. R. C. S., etc. (Lancet), says this accident is very frequently the result of injudicious attempts which are at times made to extract a foreign body from the external auditory meatus. Any out-patient room devoted to affections of the ear and every-day experience will afford ample evidence of the occurrence of such mishaps. When a child has or is believed to have a cherry-stone, a bead, a piece of slate-pencil, a stone, or what not in the ear, the proceeding which is commonly adopted to effect its removal consists in laying the child down on the side opposite the ear to be operated upon, and some sort of forceps or other instrument ingeniously constructed for the purpose is pushed into the meatus with the well-meant intention of seizing the foreign body and withdrawing it. What then often happens is this: the foreign body, not being immediately captured, on the first touch of the instrument slips down the deep curve which the floor of the bony part of the meatus takes in the direction of the tympanic membrane. A little further groping in the dark now readily ruptures the membrane, and this may be, and often is, effected at leisure if the patient is placed under chloroform; for, inasmuch as the process is extremely painful, it is found that he or she will not submit without so much struggling as to be embarrassing to the operator. The oozing of blood from the meatus will show that the membrane has given way, and in the course of a few days this is still further evinced by the appearance of a purulent discharge from the ear.

TRIGEMINAL NERVE AND OCULAR TENSION.—Dr. Hirschberg has adduced evidence that the ocular tension is influenced by the trigeminal nerve by quoting a case (*Centralblatt für Med. Wiss.*, 1875, No. 30). A woman, aged fifty-three, showed extra-ocular atrophy of the optic nerve of the right eye, with complete amaurosis, paralysis of the rectus externus

of the oculo motor nerve and of the fifth pair (right side of the face, cornea, buccal mucous membrane, and tongue completely anaesthetic and depressed in temperature). There was no sign, however, of any neuro-paralytic keratitis and no affection of the *nervus sympathicus dexter*. The tension of the eye was diminished throughout the entire course of the disease ($-T_1$) and the cornea could be depressed by the slightest pressure.

SCARLET FEVER.—The Lancet says that the throat-symptoms are the most trustworthy for the purpose of diagnosis in the initial stage of scarlet fever. The soft part of the palate is extensively reddened, and not merely the tonsils, as is the case in the first instance in ordinary sore-throat. When this condition is met with, accompanied by a very hot skin and a very quick pulse, accompanied or preceded by sickness, with a thickly-furred tongue, red borders, and prominent papillæ, a case of scarlet fever may be prepared for.

Miscellany.

—The new method of preserving meat invented by Herzer is highly praised by Prof. Scheff, who has just been called to Florence. It consists in the use of a solution of common boracic acid in water, with the addition of borax, some common salt, and saltpeter. The meat maintains a fresh appearance. Prof. S. examined some meat which had been soaked in this solution and exposed during the summer months, ate of it, and was so well satisfied that he publicly stated that this important question was settled at last.

—During a recent session of the Societ  de Chirurgie Professor Tillaux demonstrated the heart of a young woman, in the cavity of which a bullet had lain for two weeks without producing any untoward symptoms in the organ. The heart-beat and pulse never varied during this time from the normal standard. At the autopsy the ball was found within the trabeculæ of the left ventricle, so that it was visible from the same, and was surrounded by dense fibrinous coagula. Another bullet had produced a perforating wound of the liver.

—Be careful how you venture upon pleasantries in the other professions. As Prentice said about punning upon men's names, you may be pretty sure some fool has been there before you. The salient points of theology and the law have doubtless been long since butted at exhaustively, if we can take those of our own profession as a criterion. Smith says, "Doctor, is it distressingly healthy?" and then mistakes the bitter smile which he evokes as evidence that Mr. Joseph Miller was not in his infancy when this pleasant conceit originated.

—Paul Bert, professor of physiology at Paris, has received the prize of twenty thousand francs given by the French Academy as a reward for his labors in investigating the effects of increased and diminished atmospheric pressure on the animal economy, an honor which heretofore has only been awarded to such celebrities as Thiers and Guizot for their historical works.

—Dr. Kronrat, known to our readers as the assistant of Rokitsansky at Vienna, has been appointed professor of pathological anatomy at Graz, *vice* Dr. Heschl, who has been called upon to fill the same chair at Vienna recently vacated by the father of pathological science.

—Dr. Trendelenburg, late chief of clinic of Langenbeck's surgical institute in Berlin, has been appointed professor of surgery in Rostock, and has ere this entered upon his new duties, which we doubt not he will fill with his usual ability.

—Prof. Jungken, late professor of surgery and ophthalmology, and one of the first practitioners of the latter art, died recently in Hanover, at the advanced age of eighty-two years.

—If "a green yule makes a fat churchyard," there is work ahead for the profession. The thermometer during Christmas week was at 75°. In the second week of the new year it fell below freezing-point.

—It is said that Erichsen's magnificent work on the "Science and Art of Surgery" was in the main dictated by him to an amanuensis.